

U.S. Application No. 10/803,943

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (previously presented) A movable stage including a reference base having a surface plate, a movable base and a bearing means, comprising:

a movable member of said bearing means fixed to said movable base, said movable base being movable along a predetermined axis through said movable member;

a guide means for guiding said movable base along the predetermined axis, said guide means being provided on said reference base and having a fixed side member of said bearing means;

a pressing means provided on said guide means or said reference base, for pressing said movable base toward said reference base to lock said movable base on said reference base by making said movable base in contact with a surface of said reference base; and

a movable base floating mechanism for floating said movable base from said surface of said reference base against the pressing force of said pressing means.

2. (original) The movable stage as claimed in claim 1, wherein said guide means is supported by said reference base and said movable base is on said reference base.

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3. (original) The movable stage as claimed in claim 1, wherein said movable base is supported by said reference base through bearing means.

4. (currently amended) The movable stage as claimed in claim 2, wherein said movable base is supported by said reference base through bearing ~~means~~ means and said movable base floating mechanism is an air blow mechanism having a plurality of air blow orifices provided dispersedly in said movable base or said reference base, for slightly floating said movable base from said surface of said reference base by blowing air from said air blow orifices

5. (original) The movable stage as claimed in claim 4, wherein a gap for relieving air blown from said air blow orifices when the air blow from said air blow orifices of said movable base floating mechanism is stopped is provided between said movable base and said reference base.

6. (previously presented) The movable stage as claimed in claim 2, wherein said movable base is rectangular in plan view, said guide means is a rectangular frame in plan view, said movable base being mounted within said rectangular frame.

7. (original) The movable stage as claimed in claim 2, wherein said guide means has a rectangular space in plan view and is movable along one of X and Y

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axes on said reference base, said movable base is rectangular in plan view and mounted within said rectangular space of said guide means and is movable on said reference base in the other of said X and Y axes.

8. (original) The movable stage as claimed in claim 7, wherein said reference base is formed of stone, a surface of said movable base, which is in contact with said reference base, is surface-plate finished, said pressing means is provided on both side faces of said movable base, said side faces being on a line traversing said movable base through gravity center of said movable base.

9. (original) The movable stage as claimed in claim 8, wherein said pressing means comprises leaf springs for generating pressing force and said gap is provided in said movable base as recesses.

10. (previously presented) The movable stage as claimed in claim 8, wherein said bearing is a ball bearing having bearing balls between said fixed side member and said movable side member, said guide means is a rectangular frame in plan view formed of a flexible material, which is bent when said movable base floats up, and said fixed side member of said ball bearing is intimate contact with said movable side member thereof through said bearing balls when said movable base is fixed on said reference base.

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11. (previously presented) The movable stage as claimed in claim 10, wherein said guide means is a rectangular movable frame, said fixed side members of said ball bearings are provided in opposing two sides thereof, respectively, and other ball bearings similar to said ball bearings are provided between the other opposing sides of said rectangular movable frame and said reference base, said fixed side members of said ball bearings fixed onto a rear surface of said rectangular movable frame, said other ball bearings being supported by said reference base.

12. (original) The movable stage as claimed in claim 2, wherein said fixed side member of said bearing means is rigidly integrated with said movable member thereof .

13. (original) The movable stage as claimed in claim 12, wherein said guide means is bent when said movable base floats up by said movable base floating mechanism.

14. (currently amended) An XY stage including a reference base having a surface plate, a movable base and a bearing means , comprising:

~~A movable~~ a movable member of said bearing means fixed to said movable base, said movable base being movable along a predetermined axis;

a guide means movable on said reference base along one of an X axis and a Y axis, said guide means having a fixed side member of said bearing means fixed

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thereto, for guiding said movable base along the other of the X axis and the Y axis;

a pressing means provided on said guide means or said reference base, for pressing said movable base toward said reference base to lock said movable base on said reference base by making said movable base in contact with a surface of said reference base; and

a movable base floating mechanism for floating said movable base from said surface of said reference base against pressing force of said pressing means.

15. (original) The XY stage as claimed in claim 14, wherein said guide means is supported by said reference base and said movable base is on said reference base.

16. (original) The XY stage as claimed in claim 14, wherein said movable base is supported by said reference base through bearing means.

17. (currently amended) The XY stage as claimed in claim 15, further comprising a first drive source provided on said reference base for moving said guide means and a second drive source provided on said guide means for moving said movable base, wherein said guide ~~member~~means is a movable frame having a rectangular space in plan view and said movable base is rectangular in plan view and mounted within said rectangular space of said guide means, said movable base being movable along said reference base.

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18. (original) The XY stage as claimed in claim 17, wherein said fixed side member of said bearing means are provided correspondingly to opposing two sides of said movable frame, another bearing means similar to said bearing means is provided between the other opposing sides of said movable frame and said reference base and supported by said reference base and said first and second drive sources are linear motors, respectively.

19. (original) The XY stage as claimed in claim 17, wherein said movable base floating mechanism is an air blow mechanism having a plurality of air blow orifices provided dispersedly in said movable base or said reference base, for floating up said movable base from said surface of said reference base by blowing air from said air blow orifices.

20. (original) The XY stage as claimed in claim 19, wherein a gap for relieving air blown from said air blow orifices when the air blow from said air blow orifices of said movable base floating mechanism is stopped is provided between said movable base and said reference base.

21. (original) The XY stage as claimed in claim 20, wherein said reference base is formed of stone, a surface of said movable base, which is in contact with said reference base, is surface-plate finished, said pressing means is leaf springs provided on both side faces of said movable base, said side faces being on a line traversing said movable base through gravity center of said movable base and

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said gap is provided as recesses of said movable base.

22. (currently amended) A head carriage including a movable base supporting a magnetic head assembly or a magnetic head cartridge, a reference base having a surface plate, a stage for supporting said movable base on said reference base and a bearing means, comprising:

~~a-said-said~~ bearing means including a movable member fixed to said movable base;

a guide means for guiding said movable base along a predetermined axis, a fixed side member of said bearing means being fixed to said guide means ;

a pressing means provided on said guide means or said reference base, for pressing said movable base toward said reference base to lock said movable base on said reference base by making said movable base in contact with a surface of said reference base; and

a movable base floating mechanism for floating said movable base from said surface of said reference base against the pressing force of said pressing means.

23. (original) The head carriage as claimed in claim 22, wherein said movable base is supported by said reference base through bearing means and said guide means is supported by said reference base.

24. (original) The head carriage as claimed in claim 23, wherein said movable base floating mechanism is an air blow mechanism having a plurality of air blow

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orifices provided dispersedly in said movable base or said reference base, for floating said movable base from said surface of said reference base by blowing air from said air blow orifices.

25. (original) The head carriage as claimed in claim 24, wherein a gap for relieving air blown from said air blow orifices when the air blow from said air blow orifices of said movable base floating mechanism is stopped is provided between said movable base and said reference base.

26. (original) The head carriage as claimed in claim 24, wherein said guide means has a rectangular space in plan view and said movable base is mounted within said rectangular space.

27. (previously presented) A magnetic head tester for testing a magnetic head by using a head carriage including a movable stage for supporting a magnetic head assembly or a magnetic head cartridge, a reference base having a surface plate, a stage for supporting said movable base on said reference base and a bearing means, said stage comprising:

a movable member of said bearing means fixed to said movable base;

a guide means provided on said reference base, for guiding said movable base along a predetermined axis, said bearing means including a fixed side member fixed to said guide means;

a pressing means provided on said guide means or said reference base, for

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pressing said movable base toward said reference base to lock said movable base on said reference base by making said movable base in contact with a surface of said reference base; and

a movable base floating mechanism for floating said movable base from said surface of said reference base against pressing force of said pressing means.

28. (original) The magnetic head tester as claimed in claim 27, wherein said movable base is supported by said reference base through bearing means and said guide means is supported by said reference base.

29. (original) The magnetic head tester as claimed in claim 28, wherein said movable base floating mechanism is an air blow mechanism having a plurality of air blow orifices provided dispersedly in said movable base or said reference base, for floating said movable base from said surface of said reference base by blowing air from said air blow orifices.

30. (original) The magnetic head tester as claimed in claim 28, wherein a gap for relieving air blown from said air blow orifices when the air blow from said air blow orifices of said movable base floating mechanism is stopped is provided between said movable base and said reference base.

31. (previously presented) A magnetic disk tester for testing a magnetic disk by using a head carriage including a movable stage for supporting a magnetic head

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assembly or a magnetic head cartridge, a reference base having a surface plate, a stage for supporting said movable base on said reference base and a bearing means, said stage comprising:

a movable member of said bearing means fixed to said movable base;

a guide means provided on said reference base for guiding said movable base along a predetermined axis, said bearing means having a fixed side member fixed to said guide means;

a pressing means provided on said guide means or said reference base, for pressing said movable base toward said reference base to lock said movable base on said reference base by making said movable base in contact with a surface of said reference base; and

a movable base floating mechanism for floating said movable base from said surface of said reference base against pressing force of said pressing means .

32. (original) The magnetic disk tester as claimed in claim 31 ,
wherein said movable base is supported by said reference base through bearing means and said guide means is supported by said reference base.

33. (original) The magnetic disk tester as claimed in claim 32, wherein said movable base floating mechanism is an air blow mechanism having a plurality of air blow orifices provided dispersedly in said movable base or said reference base, for floating said movable base from said surface of said reference base by blowing air from said air blow orifices.

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~~33.~~ 34. (currently amended) The magnetic disk tester as claimed in ~~claim~~
~~32~~claim 33, wherein a gap for relieving air blown from said air blow orifices when the
air blow from said air blow orifices of said movable base floating mechanism is
stopped is provided between said movable base and said reference base.